

MSFC Workforce Standard Deviation Analysis (9/30/2019)								
(Casteneda vs. Partida, 430 U.S. 482, 496-497 n. 17 (1989))								
PROFESSIONAL								
	TOTAL		White		Black		Hispanic	
	ALL	Female	Male	Female	Male	Female	Male	Female
AEROSPACE ENGINEER (861)								
MSFC#	921	143	684	117	36	20	21	2
MSFC%	NA	15.5%	74.3%	12.7%	3.9%	2.2%	2.3%	0.2%
RCLF%	NA	8.1%	78.3%	6.4%	2.5%	0.7%	3.6%	0.3%
NEED	NA	75	721	59	23	6	33	3
Std. Dev.	NA	8.3	3.0	7.8	2.7	5.4	2.2	NA
GENERAL ENGINEER (801)								
MSFC#	406	106	267	91	17	13	9	0
MSFC%	NA	26.1%	65.8%	22.4%	4.2%	3.2%	2.2%	0.0%
RCLF%	NA	9.8%	77.8%	7.9%	2.8%	0.6%	2.6%	0.4%
NEED	NA	40	316	32	11	2	11	2
Std. Dev.	NA	11.1	5.8	10.8	NA	6.8	NA	NA
COMPUTER ENGINEER (854) & COMPUTER SCIENTIST (15500)								
MSFC#	142	61	72	51	5	10	2	0
MSFC%	NA	43.0%	50.7%	35.9%	3.5%	7.0%	1.4%	0.0%
RCLF%	NA	30.7%	59.1%	25.2%	2.9%	2.4%	1.9%	0.9%
NEED	NA	44	84	36	4	3	3	1
Std. Dev.	NA	3.2	2.0	2.9	NA	3.6	NA	NA
Legend:								
Red	Underrepresented by two or more standard deviations							
Green	Overrepresented by two or more standard deviations							
NA	Plus (+) or minus (-) two standard deviations							

MSFC Workforce Standard Deviation Analysis								
(Casteneda vs. Partida, 430 U.S. 482, 496-497 n. 17 (1989))								
	TOTAL		White		Black		Hispanic	
	ALL	Female	Male	Female	Male	Female	Male	Female
ELECTRICAL ENGINEER (850)								
MSFC#	62	6	53	6	1	0	0	0
MSFC%	NA	9.7%	85.5%	9.7%	1.6%	0.0%	0.0%	0.0%
RCLF%	NA	10.0%	76.8%	7.6%	3.2%	0.9%	2.8%	0.4%
NEED	NA	6	48	5	2	1	2	0
Std. Dev.	NA	NA	NA	NA	NA	NA	NA	NA
ELECTRONICS ENGINEER (855)								
MSFC#	103	19	77	19	2	0	1	0
MSFC%	NA	18.4%	74.8%	18.4%	1.9%	0.0%	1.0%	0.0%
RCLF%	NA	10.0%	76.8%	7.6%	3.2%	0.9%	2.8%	0.4%

NEED	NA	10	79	8	3	1	3	0
Std. Dev.	NA	2.9	NA	4.2	NA	NA	NA	NA
MATERIALS ENGINEER (806)								
MSFC#	79	18	46	13	7	4	2	0
MSFC%	NA	22.8%	58.2%	16.5%	8.9%	5.1%	2.5%	0.0%
RCLF%	NA	11.5%	78.8%	9.4%	2.2%	1.3%	2.2%	0.4%
NEED	NA	9	62	7	2	1	2	0
Std. Dev.	NA	3.1	4.5	2.1	4.0	3.0	NA	NA
Legend:								
Red	Underrepresented by two or more standard deviations							
Green	Overrepresented by two or more standard deviations							
NA	Plus (+) or minus (-) two standard deviations							
MSFC Workforce Standard Deviation Analysis								
(Casteneda vs. Partida, 430 U.S. 482, 496-497 n. 17 (1								
	TOTAL		White		Black		Hispanic A	
	ALL	Female	Male	Female	Male	Female	Male	Female
GENERAL PHYSICAL SCIENCE (1301)								
MSFC#	28	4	23	2	1	0	0	1
MSFC%	NA	14.3%	82.1%	7.1%	3.6%	0.0%	0.0%	3.6%
RCLF%	NA	29.0%	64.4%	25.3%	2.3%	2.3%	1.6%	0.4%
NEED	NA	8	18	7	1	1	0	0
Std. Dev.	NA	NA	NA	2.2	NA	NA	NA	2.7
ASTRONOMY AND SPACE SCIENCE (1330)								
MSFC#	36	4	30	4	1	0	0	0
MSFC%	NA	11.1%	83.3%	11.1%	2.8%	0.0%	0.0%	0.0%
RCLF%	NA	12.9%	77.9%	10.9%	1.7%	0.8%	1.9%	0.4%
NEED	NA	5	28	4	1	0	1	0
Std. Dev.	NA	NA	NA	NA	NA	NA	NA	NA
PHYSICIST (1310)								
MSFC#	71	10	52	8	6	2	0	0
MSFC%	NA	14.1%	73.2%	11.3%	8.5%	2.8%	0.0%	0.0%
RCLF	NA	12.9%	77.9%	11.0%	1.7%	0.7%	1.9%	0.4%
NEED	NA	9	55	8	1	0	1	0
Std. Dev.	NA	NA	NA	NA	4.4	2.1	NA	NA
Legend:								
Red	Underrepresented by two or more standard deviations							
Green	Overrepresented by two or more standard deviations							
NA	Plus (+) or minus (-) two standard deviations							
MSFC Workforce Standard Deviation Analysis								
(Casteneda vs. Partida, 430 U.S. 482, 496-497 n. 17 (1								
ADMINISTRATIVE								
	TOTAL		White		Black		Hispanic A	

	ALL	Female	Male	Female	Male	Female	Male	Female
MSFC#	526	355	142	259	19	79	2	9
MSFC%	NA	67.5%	27.0%	49.2%	3.6%	15.0%	0.4%	1.7%
CLF %	NA	50.0%	42.1%	40.4%	3.6%	5.3%	2.6%	2.6%
NEED	NA	263	221	213	19	28	14	14
Std. Dev.	NA	8.0	7.0	4.1	NA	9.9	3.2	NA
TECHNICIANS								
	TOTAL		White		Black		Hispanic	
	ALL	Female	Male	Female	Male	Female	Male	Female
MSFC#	92	11	67	8	10	3	2	0
MSFC%	NA	12.0%	72.8%	8.7%	10.9%	3.3%	2.2%	0.0%
CLF %	NA	55.4%	33.2%	43.9%	6.1%	10.2%	4.8%	0.6%
NEED	NA	51	31	40	6	9	4	1
Std. Dev.	NA	8.4	8.1	6.8	NA	2.2	NA	NA
CLERICAL								
	TOTAL		White		Black		Hispanic	
	ALL	Female	Male	Female	Male	Female	Male	Female
MSFC#	170	158	10	110	2	43	0	0
MSFC%	NA	92.9%	5.9%	64.7%	1.2%	25.3%	0.0%	0.0%
CLF %	NA	78.5%	15.1%	61.8%	6.0%	14.2%	0.1%	1.7%
NEED	NA	133	26	105	10	24	0	3
Std. Dev.	NA	4.6	3.4	NA	2.6	4.1	NA	NA
Legend:								
Red	Underrepresented by two or more standard deviations							
Green	Overrepresented by two or more standard deviations							
NA	Plus (+) or minus (-) two standard deviations							

/02)			
977)			
Asian/Pacific Islander		American Indian	
Male	Female	Male	Female
32	2	5	2
3.5%	0.2%	0.5%	0.2%
7.1%	0.7%	0.3%	0.1%
65	6	3	1
4.3	NA	NA	NA
3	2	4	0
0.7%	0.5%	1.0%	0.0%
6.7%	0.8%	0.2%	0.1%
27	3	1	0
4.8	NA	3.5	NA
1	0	1	0
0.7%	0.0%	0.7%	0.0%
5.1%	2.1%	0.2%	0.1%
7	3	0	0
2.4	NA	NA	NA

977)			
Asian/Pacific Islander		American Indian	
Male	Female	Male	Female
2	0	0	0
3.2%	0.0%	0.0%	0.0%
6.9%	1.0%	0.2%	0.0%
4	1	0	0
NA	NA	NA	NA
3	0	1	0
2.9%	0.0%	1.0%	0.0%
6.9%	1.0%	0.2%	0.0%

7	1	0	0
NA	NA	NA	NA
4	1	2	0
5.1%	1.3%	2.5%	0.0%
5.2%	0.4%	0.2%	0.0%
4	0	0	0
NA	NA	4.6	NA

977)

Asian/Pacific Islander		American Indian	
Male	Female	Male	Female
0	0	0	1
0.0%	0.0%	0.0%	3.6%
2.4%	0.8%	0.2%	0.2%
1	0	0	0
NA	NA	NA	4.0
1	0	0	0
2.8%	0.0%	0.0%	0.0%
5.2%	0.7%	0.3%	0.0%
2	0	0	0
NA	NA	NA	NA
3	0	0	0
4.2%	0.0%	0.0%	0.0%
5.3%	0.8%	0.3%	0.0%
4	1	0	0
NA	NA	NA	NA

977)

Asian/Pacific Islander		American Indian	

Male	Female	Male	Female
1	5	7	3
0.2%	1.0%	1.3%	0.6%
1.4%	1.4%	0.3%	0.3%
7	7	2	2
2.4	NA	4.3	NA

Asian/Pacific Islander American Indian

Male	Female	Male	Female
0	0	2	0
0.0%	0.0%	2.2%	0.0%
0.4%	0.4%	0.1%	0.3%
0	0	0	0
NA	NA	6.3	NA

Asian/Pacific Islander American Indian

Male	Female	Male	Female
0	1	0	4
0.0%	0.6%	0.0%	2.4%
0.2%	0.5%	0.1%	0.4%
0	1	0	1
NA	NA	NA	4.0